

DRAFT MEMORANDUM

To: UC RTT
UC Project Sponsors

From: Joint RTT/YN workgroup

Re.: Guidance on the implementation of the Upper Wenatchee Reach Assessment

Date: **May 4, 2012**

Introduction

Members of the RTT and YN (the workgroup) met first on April 9 and then again on May 2 to discuss guidance on project development related to the Upper Wenatchee Reach of the Wenatchee River. In the first meeting (April 9), not enough RTT members were present to discuss more than general comments. Rob Richardson (USBR, assisting the RTT) gave the YN team many constructive general and specific comments. For the May 2 meeting, RTT members present included: Dale Bambrick, Tom Kahler, Joe Lange, and Chuck Peven. Members from the YN team included Brandon Rogers, Jason Breidert, and Gardner Johnston (Interfluve). Derek Van Marter and Rob Richardson were on the phone.

The purpose of the meeting was to develop a memorandum considering the draft Upper Wenatchee Reach Assessment and the biological strategy of the RTT. The intent of this memorandum is to provide detailed guidance to the Lead Entities and potential project sponsors in developing projects that are geomorphically and biologically appropriate for the Upper Wenatchee Assessment Area (UWAA).

Goals and Objectives

The goal (desired future condition) of restoration activities in the Upper Wenatchee is to *rehabilitate habitat in the UWAA to improve spring Chinook salmon, steelhead, and bull trout¹ populations in the Wenatchee River.*

The biological objectives associated with this reach are:

1. Increase summer and winter rearing habitat for juvenile steelhead and spring Chinook salmon;
2. Increase spawning, resting and holding areas for various life stages of spring Chinook salmon, steelhead, and bull trout; and
3. Ensure that geomorphically appropriate methods are used to rehabilitate habitat within the UWAA.

¹ Bull trout are not a target species for the FCRPS Action Agencies, but they are a focus species for the UCSRB and RTT. All of the actions proposed should benefit this species too.

Guidance on Project Development

Process

The workgroup reviewed the draft Upper Wenatchee Reach Assessment and draft tables that are currently being revised for the RTT's Biological Strategy pertaining to the UWAA. In addition, information being developed for the Expert Panel Process by a subgroup of the Expert Panel/RTT was also reviewed.

The process for reviewing the Upper Wenatchee Reach Assessment was fundamentally different than what was done with the Lower Entiat Reach Assessment conducted earlier this year. The reasons for this were:

1. The Upper Wenatchee Reach Assessment is more complex with more assessment units;
2. The Upper Wenatchee Reach Assessment was developed to a much finer scale (at the specific project level compared to project "type") than the Lower Entiat, and consequently;
3. The project list was too large for a similar review.

Therefore, the workgroup focused on reviewing each of the 11 sub-reaches that were identified within the Reach Assessment, and focused on the proposed strategies to address potential habitat restoration projects. Specific projects were not discussed.

In addition, the group reviewed and discussed the prioritization strategy that the YN team has used in the past to prioritize specific projects.

Results

General Comments

One of the general comments was that it appeared to some of the members of the workgroup that many of the actions described in the Reach Assessment appeared to rely on the placement of large woody material (LWM). Gardner described why LWM processes are impaired, including historic legacy issues (such as log drives and wood harvest, etc.). He also pointed out that while many of the proposed project types relied on LWM placement, the YN team was fully aware of the social issues surrounding LWM placement, and that the current assessment was just listing all potential actions, and should not be considered a prioritized list that it hopes to accomplish.

Another general issue that was discussed was whether some of the geomorphic problems in the area were caused by legacy actions or were natural features. In some cases, it is just not possible to determine, while in others, it was clear that actions such as log drives are still affecting the reach.

Discussion on sub-reaches

Gardner described the current condition within each sub-reach and restoration strategies, while showing the areas with various graphics (e.g., Lidar images) and photos. *In each case, the members of the RTT that were present believed that the YN team's suggested approach was consistent with the goals and objectives of the RTT biological strategy.*

Prioritization Strategy

Because the workgroup did not believe it was feasible to walk through each sub-reach and discuss specific projects (as was done for the Lower Entiat), the group agreed that it would be more beneficial to discuss the prioritization strategy that will assist the YN (and potentially other project sponsors) in determining the project types that should be developed and implemented. Below is an outline of methodology and the criteria for the benefit scoring that the YN team has used in past assessments (e.g. Lower Chewuch and Lower Twisp) to assist in prioritization:

Project Ranking Methods (DRAFT)

- Step 1: Benefit Score** Projects are scored according to 4 benefit categories, which include 2 *biological* categories and 2 *physical process* categories. Scores for each category are summed to obtain the total *Benefit Score*.
- Step 2: Cost Score** Projects are given a *Cost Score*, which reflects the overall *relative cost* for the project based on techniques, access, and construction feasibility issues.
- Step 3: Benefit-to-Cost Score** Total benefit score (sum of all 4 benefit scores) is divided by the cost score to obtain the *Benefit-to-Cost Score*.
- Step 4: Feasibility Designation** Project is given a *Feasibility Designation* based on the overall likely feasibility of being able to implement the project within a 10-year timeframe.

Benefit Score

Each of the 5 benefit categories (A through D below) are given a score of 1 to 3, with 3 representing the greatest benefit. The scores for each category are summed to obtain the total benefit score. Application of scores is based on consideration of several factors that are listed under the categories below. These will be further developed in subsequent drafts of the methodology:

Biological Categories

A Fish use score:

- 3 – High existing or potential productivity area for spawning or rearing for multiple species
- 2 – Moderate existing or potential productivity area for one or more species
- 1 – Low existing or potential productivity area for one or two species

B Fish life-stage limiting factors score:

- 3 – Addresses key habitat factors at key life-stages for multiple species
- 2 – Addresses either secondary habitat factors, non-key life-stages, or only one or more species

- 1 – Addresses low priority habitat factors at non-key life-stages for a single species

Physical Process Categories

C Root-causes score

- 3 – Restoration of root causes and key physical processes that create and maintain habitat over time
- 2 – Partial restoration of root causes
- 1 – Primarily a structurally-focused restoration strategy that doesn't significantly address underlying causes

D Existing physical process condition score

- 3 – Physical processes are significantly impaired or non-functioning. Habitat quantity and quality are impaired.
- 2 – Physical processes are moderately impaired with limited availability of quality habitat
- 1 – Physical processes are functioning well and are supporting high quality habitat conditions

Discussion

The group recommended that additional criteria for “complexity” and “risk” be added to the strategy. These criteria would add additional information and assist in understanding some of the technical and social issues that may limit some of the proposed actions.

The group also suggested it would be beneficial to have more definition in the biological benefit criteria concerning how much improvement the possible action is estimated to have. By doing this, it would be easier to understand the prioritization between a project with an estimated “large effect” in a lower priority area compared to a project within a high priority with an estimated “small or moderate effect”.

Another helpful criterion would be an estimate of the “cost” of implementing the project on existing conditions (or fish) would have, so that the biological “cost” of implementing the action is worth the potential long-term benefit. For example, in sub-reach number 1, if it was determined that LWM placement would increase rearing habitat, temporary roads would need to be built, which would degrade the existing riparian habitat. In this example, it would probably not be worth the “cost” to the existing intact riparian habitat for the increase in rearing area.

There was some discussion on whether a hydraulic analysis and further geomorphic information would be of use at this stage of the project prioritization. The YN said they would look into obtaining additional information prior to finalizing the draft RA.

Conclusion

The project types identified within the draft Upper Wenatchee Reach Assessment appear to be consistent with the RTT's biological strategy, and that the projects will likely have biological benefit. However, there remained some concern regarding the need for additional geomorphic information before the RTT would be able to conclude that the actions are geomorphically appropriate. Further refinement and critique will occur during the normal project development and evaluation process once specific projects are identified and proposals developed.